

REMARKS

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, claims 18-20 have been cancelled. In addition, the claims have been amended for clarity.

The Examiner has rejected claims 18-20 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In view of the cancellation of claims 18-20, Applicants believe that this rejection has been overcome.

The Examiner has rejected claims 10-13, 15, 16, and 18-20 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,404,781 to Kawamae et al. in view of U.S. Patent 5,838,874 to Ng et al. The Examiner has further rejected claims 14 and 17 under 35 U.S.C. 103(a) as being unpatentable over Kawamae et al. in view of Ng et al., and further in view of U.S. Patent 6,490,355 to Epstein. Furthermore, the Examiner has rejected claims 1-6 and 9 under 35 U.S.C. 103(a) as being unpatentable over Kawamae et al. in view of Ng et al., and further in view of U.S. Patent 5,960,081 to Vynne et al. Finally, the Examiner has rejected claims 7 and 8 under 35 U.S.C. 103(a) as being unpatentable over Kawamae et al, in view of Ng et al. and Vynne et al., and further in view of Epstein.

The Kawamae et al. patent discloses a data transmission method for embedding data, data transmitting and reproducing apparatuses and information recording medium therefor, in which additional information is embedded by repeatedly adding the same information into the original data. In particular, as indicated at

col. 1, lines 25-28, Kawamae et al. states "The present invention relates to a data transmission method for transmitting and receiving data, such as video and/or audio data in which additional information data (i.e., data hiding or water mark, etc.) are embedded or concealed...."

The Ng et al. patent discloses an audiovisual encoding system with a reduced number of audio encoders, in which a portion of an image of a video signal may be edited while maintaining the same number of bits for the replaced edited region.

The subject invention relates to a method of decoding a digital video signal, and includes, as claimed in, for example, claim 10, "receiving a main bitstream representing, on display, an image of a video signal", "receiving an auxiliary bitstream representing replacement video information corresponding to, on display, an image area of said image", "replacing a sub-series of bits of said main bitstream representing said image area by said replacement video information to obtain a modified bitstream, wherein said modified bitstream defines said sub-series by a substantially same number of bits as a sub-series of bits representing said image area in said main bitstream" and "decoding said modified bitstream".

As indicated in MPEP § 2143.01, "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or

implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art."

Applicants submit that there is no motivation in either Kawamae et al. or Ng et al. for combining the references. In particular, Kawamae et al. relates to embedding (or hiding) data in, for example, a video signal. There is no disclosure or suggestion in Kawamae et al. of the video signal being modified by modifying a portion of the video signal corresponding, on display, to an image area in order to form a modified image area. It is important to realize that while Kawamae et al. mentions the position of the bits of the embedded data in the video stream, there is no mention of the position, on display, of an image area corresponding to the video signal, nor the modification of the video signal corresponding to this image area. Hence, in a decoder, or receiver of the video signal containing the embedded data, once the embedded data is extracted from the video signal, which can be embodied in the first two steps of the subject invention as claimed, i.e., "receiving a main bitstream representing, on display, an image of a video signal", "receiving an auxiliary bitstream representing replacement video information corresponding to, on display, an image area of said image", Kawamae et al. neither discloses or suggests "replacing a sub-series of bits of said main bitstream representing said image area by said replacement video information to obtain a modified bitstream". Hence, there is no incentive for combining the teachings of Ng et

al. into Kawamae et al. Any incentive would come from the subject invention which would be indicative of hindsight.

The Epstein patent discloses a method and apparatus for use of a time-dependent watermark for the purpose of copy protection, in which a watermark may be used to for copy protection and to enable recording of the watermarked signal.

With regard to Epstein, Applicants would like to note that it is a desire of watermarks not to affect the displayed image of a video signal. Hence, there is no disclosure in Epstein, or in the combination of Kawamae et al., Ng et al. and Epstein, of examining the video signal corresponding to an image area to detect if the image area (i.e., the displayed image area) identifies copy protection status, and if so, enables recording of the modified bitstream in which portion of the bitstream corresponding to the image area is replaced by a corresponding bitstream in the replacement video information.

The Vynne et al. patent discloses embedding a digital signature in a video sequence. The Examiner then states that Vynne et al. "teaches the conventional replacement of modified image areas such as logos with the original image or superimposing another logo (see column 1, lines 11-42)."

Applicants firstly submit that Vynne et al. merely mentions that the identifying of television signals by the placement of logos on the displayed image may be defeated "If the images are digital there will be no loss of quality and it will be very easy to remove the channel logo, and even superimpose another

logo instead." However, Vynne et al. neither discloses nor suggests how this may be done. Rather, Vynne et al. is concerned with the embedding of a digital signature for identifying the video signal. There is no mention of the digital signature being a modified image area on display.

Applicants therefore submit that Vynne et al. does not supply that which is missing from Kawamae et al. and Ng et al., i.e., "modifying a portion of said original video signal in order to form, on display, a modified image area of said image, thereby creating a modified video signal; transmitting the modified video signal; transmitting an auxiliary signal as a sub-series of bits defining replacement video information for said modified portion of the original video signal corresponding, on display, to the modified image area of the image as a sub-series of bits, wherein said sub-series of bits is encoded by a substantially same number of bits as said modified portion of the original video signal corresponding, on display, to said modified image area".

In view of the above, Applicants believe that the subject invention, as claimed, is not rendered obvious by the prior art, either individually or collectively, and as such, is patentable thereover.

Applicants believe that this application, containing claims 1-17, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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